Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

CERTIFIED – RETURN RECIEPT REQUESTED

August 13, 2003

Mr. Richard Bonner
Deputy District Engineer
U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Mr. Bonner:

Enclosed is the permit (Permit No. 0192879-001-GL) for the Ten Mile Creek Critical Restoration project, issued under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA), Chapter 373.1502, Florida Statutes (F.S.); Title 62, Florida Administrative Code (F.A.C.); and pursuant to the Department's authority under Chapters 373 and 403, Florida Statutes.

Please review this document carefully and make copies for the project site and all appropriate persons associated with the project. Please discuss the document with your staff, contracted/hired personnel, and applicable others to ensure compliance with the conditions and requirements contained therein.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

If you have any questions about this document, please contact me at (850) 245-8424.

Sincerely,

Temperince Morgan

Temperince Morgan
Environmental Specialist III
Water Quality Standards and
Special Projects Program

TM/sy

enclosure (Permit No. 0192879-001-GL)

CERTIFIED MAIL NO.: 7001 0320 0001 3693 6791

cc: Mark White, U.S. Army Corps of Engineers (email)
Doris Marlin, U.S. Army Corps of Engineers (email)
Eric Bush, U.S. Army Corps of Engineers (email)
John Pax, U.S. Army Corps of Engineers (email)
Denise Arrieta, South Florida Water Management District (email)
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COMPREHENSIVE EVERGLADES RESTORATION PLAN REGULATION ACT (CERPRA) PERMIT- CONSTRUCTION AUTHORIZATION

PERMITTEE:

U.S. Army Corps of Engineers
Jacksonville District
Post Office Box 4970
Jacksonville, Florida 32232-0019

Attn.: **Mr. Richard Bonner**
Deputy District Engineer
Project Management

Permit Numbers: 0192879-001-GL

Date of Issue: August 13, 2003
Expiration Date: August 13, 2008
County: St. Lucie County
Project: Ten Mile Creek Water Preserve Area Critical Project

This permit is issued under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA), Chapter 373.1502, Florida Statutes (F.S.); Title 62, Florida Administrative Code (F.A.C.); and pursuant to the Department's authority under Chapters 373 and 403, Florida Statutes. The activity is not exempt from the requirement to obtain a CERPRA Permit.

PROJECT DESCRIPTION:
This project is a Critical Restoration project, which was authorized by Congress under Section 528 of the Water Resources Development Act of 1996. The purpose of the Ten Mile Creek Water Preserve Area Critical Project (Ten Mile Creek Project) is to control the quantity and timing of water deliveries to the North Fork of the St. Lucie River by capturing and storing stormwater originating in the Ten Mile Creek basin. Additional benefits to the St. Lucie River and Estuary should occur due to reduction in sediment load, suspended solids concentration, and nutrients.

The project involves construction, operation, and maintenance of a two-stage detention system (see Figure 1). The first component is a 576 acre water storage area (reservoir) with an operational storage capacity of 6,000 acre feet. The second component is a 152 acre treatment wetland with an operational storage capacity of 608 acre feet. A 380 cfs pump station (S-382) will move water from Ten Mile Creek into the reservoir, from which it will flow downstream into the treatment wetland via a gravity control structure (S-383) with two auxiliary pumps (15 and 25 cfs). A final control structure (S-384) will convey water by gravity from the treatment wetland into Ten Mile Creek by way of Canal 96. When water is available, the reservoir will also provide irrigation water supply to local agriculture via a return bay at the main pump station.

The U.S. Army Corps of Engineers (Corps) is the federal sponsor of this project and is responsible for activities performed during the "period of construction", as defined by Article I .E. of the Project Cooperation Agreement for this project. The South Florida Water Management District (SFWMD) is the local sponsor of this project and is responsible for operation, maintenance, repair, replacement, and rehabilitation in accordance with Article VIII of the Project Cooperation Agreement. A separate permit (Permit No. 0192879-002-GL) will be issued to the SFWMD authorizing activities performed during the operations phase, while this permit is being issued to the Corps authorizing activities performed during the period of construction. All conditions found herein apply to the Corps.

Approximately 34 acres of wetland will be directly and indirectly impacted during construction; however, approximately 152 acres of predominantly emergent wetlands will be created as a result of this project. All of the surface waters and wetlands to be directly impacted by construction of the project are Class III Waters.

PROJECT LOCATION:
The project is located adjacent to Ten Mile Creek (Class III Waters) in the vicinity of the Gordy Road Structure, which is in St. Lucie County, Sections 25, 26, 27, 34, 35, and 36, Township 35 South, Range 39 East. Specifically, the reservoir and treatment wetland are situated south of Ten Mile Creek and State Road 70, immediately west of the I-95/Florida Turnpike intersection in St. Lucie County, and north of Midway Road.

IN ACCORDANCE WITH:
This CERPRA permit for the construction phase of the Ten Mile Creek Water Preserve Area Critical Project is issued in accordance with the following:

- The Comprehensive Everglades Restoration Plan Regulation Act, Section 373.1502, F.S.;
- The permit application for the construction phase of the Ten Mile Creek Water Preserve Area Critical Project;
- The Design Documentation Report for Ten Mile Creek Project, February 13, 2002; and,
- The engineering drawings and technical specifications for Ten Mile Creek Water Preserve Area.

This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act, 14 U.S.C. § 1456, and constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. § 1341.

This activity also requires proprietary authorization, as the activity is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the activity qualifies for a consent to use sovereign submerged lands.

Therefore, the Department will issue a Letter of Consent to the local sponsor, SFWMD, pursuant to Chapter 253.77, F.S., granting consent to use the subject sovereign submerged lands for construction and operation relating to this activity. The authorization to use sovereign submerged lands will be subject to the limits, conditions, and locations of work shown in the CERPRA permit issued to SFWMD (Permit No. 0192879-002-GL).

The above named permittee is hereby authorized to construct the work shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions may constitute grounds for revocation of the permit and appropriate enforcement action.

DECLARATION OF REASONABLE ASSURANCES:

In issuing this permit, the Department finds that the Corps has given reasonable assurances sufficient to satisfy the requirements of the Comprehensive Everglades Restoration Plan Regulation Act, Section 373.1502, F.S. The Department bases this finding on the following documents, listed by FDEP document number:

1) United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Water Preserve Area Critical Project Comprehensive Everglades Restoration Plan Water Quality Certification / Permit Application (Dec. 2001);
2) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Water Preserve Area, Pump Station S-328, St. Lucie County, Florida, Construction Solicitation and Specifications (Feb. 13, 2002);
3) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Central and South Florida Ecosystem Critical Restoration Project Plans for Ten Mile Creek Water Preserve Area, St. Lucie County, Florida, Final 100% Plans (Feb. 13, 2002);
4) Post, Buckley, Schuh & Jernigan, for United States Army Corps of Engineers, Jacksonville District, Design Documentation Report for Ten Mile Creek Project, Final (100%) Design (Feb. 13, 2002) (2 volume set);
5) Project Cooperation Agreement Between the Department of the Army and South Florida Water Management District for Construction of Ten Mile Creek Water Preserve Area Critical Restoration Project (Jan. 7, 2000);
6) United States Army Corps of Engineers, Jacksonville District, Ten Mile Creek Monitoring Program (undated);
7) Wetland Solutions, Inc., for South Florida Water Management District, Ten Mile Creek Water Preserve Area – Updated Water Quality Assessment Final Report (June 2002);
8) United States Army Corps of Engineers, Jacksonville District, Draft Preliminary Water Control Plan for the Ten Mile Creek Deep Water Storage Area (Mar. 1, 2002);
9) Agreement By and Between South Florida Water Management District and North St. Lucie River Water Control District Concerning the NSLRWCD Surface Water Management System and the Ten Mile Creek Critical Restoration Project (unexecuted draft);
10) United States Army Corps of Engineers, Jacksonville District, Memorandum for the Chief of Policy and Planning Decision regarding Design Agreement for the Comprehensive Everglades Restoration Plan (Mar. 24, 2000);
11) United States Army Corps of Engineers, Jacksonville District, Response to First Request for Additional Information (Mar. 12, 2002);
12) United States Army Corps of Engineers, Jacksonville District, Response to Second Request for Additional Information (July 18, 2002); and
13) Florida Division of State Lands Title & Lands Records Section, Title Determination in Response to April 30, 2002 Request for Title Review, DEP/BOT/WMD File No. 0192879 (May 23, 2002).

Specifically, there are reasonable assurances, pursuant to section 373.1502, F.S., that

- "The project component will achieve the design objectives set forth in the detailed design documents submitted as part of the application." This finding is based on document 1 in its entirety with emphasis on section A6; documents 2 and 3; document 4 in its entirety with emphasis on sections 2.1 and 4.18; documents 6 and 7; document 8 in its entirety with emphasis on Appendix E thereto; and documents 10 through 12.
- "State water quality standards will be met to the maximum extent practicable. Under no circumstances shall the project component cause or contribute to violation of state water quality standards." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E), document 2 in its entirety with emphasis on sections 01355 and 01571, document 3, document 4 in its entirety with emphasis on section 4.18, documents 6-8, and documents 11 and 12.
- "Discharges from the project component will not pose a serious danger to public health, safety, or welfare." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E); document 2; document 3; document 4 in its entirety with emphasis on sections 4.16.2, 4.16.3, 4.16.4, and appendices C through E; documents 6-8; and documents 11 and 12.
- "Any impacts to wetlands or threatened or endangered species resulting from implementation of the project component will be avoided, minimized, and mitigated, as appropriate." This finding is based on document 1 in its entirety with emphasis on the Environmental Assessment on the Ten Mile Creek Critical Project (tab E) and the USFWS Draft Coordination Act Report (appendix D to tab E); document 2 in its entirety with emphasis on sections 01355 and 01571; document 3; and documents 11 and 12.

Additionally, the Department finds that document 6 satisfies the requirement that "[p]ermits issued under this subsection must contain reasonable conditions to ensure that water quality resulting from construction and operation of project components is adequately and accurately monitored." Section 373.1502(d), F.S.

The Corps agrees to construct the project in accordance with the provisions of the permit application and supporting documentation. To the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t), the Corps' agreement to construct the project in accordance with the provisions of the permit application and supporting documentation is an enforceable condition of this permit.

GENERAL CONDITIONS:

1. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated significant deviation from this authorization prior to implementation so that the Department can determine whether a modification is required. If the Department determines that a deviation is significant, then the Corps or the local sponsor, as appropriate, shall apply for and obtain the modification prior to its implementation.

2. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information: a description of and cause of noncompliance; and the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law to the extent that federal sovereign immunity has been waived under 33 U.S.C. 1323 and 1344(t).

3. The Corps shall obtain any applicable licenses or permits which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project. Projects shall not proceed until any other required permits or authorizations have been issued by the responsible agency.

4. Nothing herein conveys title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of sovereign land of Florida seaward of the mean high-water line, or, if established, the erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.

5. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.

6. Nothing herein conveys to the Corps or creates in the Corps any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or convey any vested rights or any exclusive privileges.

7. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site on the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.

8. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the term of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or

parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.

9. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.

10. If historic or archaeological artifacts are discovered at any time on the project site, the Corps shall immediately notify the State Historic Preservation Officer; and if a significant deviation is necessary, shall also notify the Department.

11. Within a reasonable time after completion of project construction or a periodic maintenance dredging event, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

12. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t).

13. To the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t), the Corps agrees to comply with all applicable Florida law, including but not limited to Department rules.

14. The Corps agrees to retain and make available all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source in accordance with the Freedom of Information Act, 5 U.S.C. § 552 et seq.

SPECIFIC CONDITIONS:

1. **Instructions to Contractors.** The permittee shall ensure that the permit conditions are explained to all construction personnel working on the project and shall give a copy of this permit to each contractor and subcontractor before the authorized work begins. Prior to construction, the permittee shall schedule a pre-construction meeting for attendance by the contractor(s), and representatives from the U.S. Army Corps of Engineers, the Department, and other environmental regulatory agencies. The Department shall receive at least two weeks' notice of the meeting. The proposed construction schedule shall be provided at the pre-construction meeting.

2. **Authorized Construction:** This permit authorizes construction of the Central and Southern Florida Ecosystem Critical Restoration Project for the Ten Mile Creek Water Preserve Area in accordance with the Final (100 percent) Plans submitted to the Department on April 3, 2002 and February 17, 2003.

3. **Addresses.** Reports and notices submitted to the Department in accordance with this permit shall be submitted to the Department's Division of Water Resource Management, Water Quality Standards and Special Projects Program, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8416, and to the Department's Southeast District Office, Environmental Affairs Program, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401, telephone no. (561) 681-6600.

4. **Construction Best Management Practices.** At all times during the construction, the permittee shall use best management techniques for erosion and sedimentation control. All graded areas shall be stabilized and vegetated immediately after construction to prevent erosion. The permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site in accordance with Sections 01355 and 01571 of the Technical Specifications for this project.

5. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains, shall be employed during all operations that may create turbidity so that it shall not exceed 29 NTU's above

background in the Ten Mile Creek. Turbidity screens shall be placed and maintained around the work area (work cell) to confine turbidity generated by dredging operation to contain turbid water within "work cells". All screens, sheetpile, and other turbidity control devices shall remain in place until all turbidity has subsided and meets state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction that could generate turbidity. For monitoring purposes, the work area (= workcell) is that area defined by the turbidity curtained "cell(s)". The permittee shall monitor turbidity levels at least once every four hours during all operations that may create turbidity (unless monitoring data shows this to be excessive) during construction as follows.

A. Monitoring samples shall be taken at the surface at the following locations:

1. Background Sample(s): One background sample station, at least 1000 feet upstream of the work area, in the Ten-Mile Creek, outside any visible plume generated by the construction; and

2. Compliance Sample(s): Monitoring station located in the Ten-Mile Creek adjacent to the work area, no more than 225 feet down current from the work area within the densest portion of any visible plume.

B. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three calendar months) by project. Beginning with the first calendar month that construction occurs that could generate turbidity in waters adjacent to the construction sites, a report containing the summarized turbidity monitoring results for each project shall be submitted quarterly to the Department at the addresses listed in Specific Condition No. 3. If no construction occurs that could generate turbidity during the quarterly monitoring period, the report shall be so noted. The reports shall also contain the following information:

1. Permit number;

2. Dates and time of sampling and analysis;

3. A statement describing the methods used in collection, handling, storage and analysis of the samples;

4. A clear description of project activities taking place at the time of sampling;

5. A map indicating the sampling locations; and

6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.

C. Monitoring reports shall also include the following information for each sample that is taken:

1. Water depth

2. Depth of sample

3. Weather conditions

4. Water level stage and direction of flow.

In the event that project-generated turbidity levels beyond the work areas exceed the standard (29 NTU's above background), project activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified immediately. Work shall not resume until the work can be conducted in compliance with the aforementioned turbidity standard.

6. **Adjacent and Interior Wetlands.** Prior to the commencement of construction, the perimeter of the protected wetlands adjacent to the construction area shall be staked and fenced off with construction fencing or other effective physical barriers to prevent encroachment into the wetlands. The permittee shall notify the Department's environmental compliance staff in writing upon completion of installing the barriers and schedule an inspection of this work. The barriers shall remain in place until all adjacent construction activities are

complete. Wetlands within the treatment areas (interior wetlands) are to be preserved, not scraped down. Where appropriate, interior wetland areas may also be fenced off to prevent encroachment and disturbance during construction.

7. **NPDES Stormwater Construction Generic Permit.** The issuance of this Permit does not constitute coverage under the National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharges from Construction Activities (CGP) pursuant to Rule 62-621.300(4), F.A.C. Permittee is advised to contact the Department's NPDES Stormwater Program at (850) 245-7522 or toll free at (866) 336-6312 or to download application information at http://www.dep.state.fl.us/water/stormwater/npdes/construction1.htm. prior to the commencement of any construction.

8. **Offsite Dewatering.** The issuance of this Permit does not constitute coverage under the NPDES General Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity pursuant to 62-621.300(2), F.A.C. If any offsite discharges will occur due to construction dewatering activities, then coverage under the aforementioned General Permit may be required and the permittee is advised to review Rule 62-621.300(2), F.A.C. At least 30 days before beginning use of the General Permit, the permittee must notify this office of its intent by letter. If the proposal meets applicable criteria for use of the General Permit, then the Department does nothing and the permittee may proceed with the project while abiding by all conditions of the General Permit.

9. **Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual.** No less than 30 days prior to completion of the project, the permittee shall submit a draft Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) Manual as provided in Article II.C. of the Project Cooperation Agreement between the permittee and the Non-Federal Sponsor (SFWMD) to the Department at the addresses listed in Specific Condition 3.

10. **Operations Phase.** The operation phase of this permit shall become effective upon the District Engineer's turnover of the Project or functional portion thereof to the Non-Federal Sponsor for the Project as provided in the Project Cooperation Agreement. Prior to turnover to the Non-Federal Sponsor, the Corps will conduct an initial operational testing and monitoring period during which time, data will be collected to demonstrate compliance with water quality standards. This initial operational testing and monitoring period should be less than a year or no longer than the period of time needed to collect representative data necessary for these determinations. Notification of the completion of the initial operational testing and monitoring period should be provided to the Department at the addresses listed in Specific Condition 3 prior to the Non-Federal Sponsor's initiation of the operations phase.

11. **Pump Station Testing and Maintenance.** In order to ensure operational readiness, initial testing may be needed by the construction contractor for the pump stations authorized by this permit prior to turnover of the pump stations to the Non-Federal Sponsor for operation. Operational readiness requirements for the pump stations include operation of the pumps for approximately 2 to 4 hours per month, as necessary, to maintain their mechanical integrity. Therefore, temporary operation of the pump stations for testing and maintenance purposes is allowed and is not subject to the discharge criteria of the specific conditions of this permit. However, the permittee shall include all such discharge flows and loads as a part of the monitoring requirements of this permit.

Initial Operational Testing and Monitoring Period The Initial Operational Testing and Monitoring Period of the construction phase of the project consists of pre-discharge and flow-through (discharge) activities. During the Initial Operational Testing and Monitoring Period, the permittee shall perform water quality monitoring in accordance with the following procedures:

12. **Initiation of Initial Operational Testing and Monitoring Period.** The permittee shall notify the Department at the addresses listed in Specific Condition No. 3 upon initiation of the Initial Operational Testing and Monitoring Period.

13. **Pre-Discharge Activities.**

    A. **Phosphorus and Nitrogen.** Prior to initiating flow-through (discharge) activities during the Initial Operational Testing and Monitoring Period, the permittee shall monitor phosphorus and nitrogen

concentrations within the project to demonstrate that the project is achieving a net reduction in those nutrients. This net reduction shall be deemed to occur when the 4-week geometric mean total phosphorus and total nitrogen water column concentrations from samples collected at the outflow structures is less than the 4-week geometric mean total phosphorus and total nitrogen water column concentration collected at the inflow structures. If the project has not resulted in a net reduction of phosphorus and nitrogen within two months after beginning pre-discharge activities, the permittee shall submit bi-monthly reports of the 4-week geometric mean difference. If after six months, the system has not met the 4-week start-up test, the permittee shall evaluate vegetative conditions and identify strategies to achieve the net reduction. When this net reduction demonstration has been made, the permittee shall notify the Department that waters in the STA are acceptable for commencing flow-through (discharge) activities with respect to phosphorus and nitrogen.

B. **Mercury.** Upon initiation of the Initial Operational Testing and Monitoring Period, the permittee shall begin collecting bi-weekly, unfiltered water samples for total and methylmercury at the inflow and midpoint of the STA. When the concentrations of total mercury and methylmercury at the midpoint are not significantly greater than the concentrations of the corresponding species in inflow samples, the permittee shall notify the Department that waters in the STA are acceptable for commencing flow-through (discharge) activities with respect to mercury. In addition to the aforementioned water column analysis for mercury, the SFWMD in their role as local sponsor for this project, will conduct fish tissue sampling in accordance with Permit No. 0192879-002-GL.

C. **Pesticides.** Prior to initiating flow-through (discharge) activities during the Initial Operational Testing and Monitoring Period, the permittee shall collect samples from the water column and sediments at the S-382 (inflow) and S-384 (outflow) structures and monitor for pesticides as indicated in Table 1. Pesticides monitoring results shall be submitted to the Department within 6 months of sample collection.

D. **Alternative Data.** When required by flow or water levels, alternative representative data may be provided by the permittee to demonstrate that the Ten Mile Creek Project is achieving a net reduction in phosphorus, nitrogen, and mercury.

14. **Flow-Through (Discharge) Activities.** The permittee shall notify the Department at the addresses listed in Specific Condition No. 3 upon initiation of flow-through (discharge) activities during the Initial Operational Testing and Monitoring Period. The following monitoring and evaluation activities shall be conducted:

    A. **Phosphorus and Nitrogen**. The permittee shall monitor and evaluate total water column phosphorus and nitrogen concentrations in samples collected at the S-384 (outflow) and S-382 (inflow) structures as follows:

        1. Rolling 3-month flow-weighted mean total phosphorus and total nitrogen concentrations shall be calculated for the S-384 (outflow) and S-382 (inflow) structures;

        2. The flow-weighted mean outflow concentrations of total phosphorus and total nitrogen at the S-384 (outflow) structure shall be compared to flow weighted mean concentrations at the S-382 (inflow) structure using the student's t-test with a 95 percent confidence interval on log transformed data;

        3. If this evaluation indicates that the flow-weighted mean outflow concentrations are less than the flow-weighted mean inflow concentrations, then discharges from the project shall be deemed to be in compliance with this condition.

        4. If after six months, discharges from the project are not achieving a net reduction in total phosphorus and total nitrogen in accordance with this requirement, the permittee shall evaluate vegetative conditions and identify strategies to achieve the net reduction.

    B. **Dissolved Oxygen**. In order to ensure that the Project is not responsible for degradation of dissolved oxygen in downstream receiving waters, dissolved oxygen shall be monitored and evaluated as follows:

1. If flow-through discharges have been occurring for less than 12 months, but the Corps is preparing to turn the project over to the Non-Federal Sponsor in accordance with Specific Condition 10, then calculate an average for the outflow and inflow structures based on the available data and evaluate according to the following criteria. If flow-through discharges have been occurring for 12 months, then calculate the annual average for the outflow and inflow structures and evaluate according to the following criteria. If flow-through discharges occur for greater than 12 months, then calculate the annual average at the 12 month mark and every 12 months thereafter or calculate the annual average at the 12 month mark and a subsequent average immediately prior to turnover to the District and evaluate according to the following criteria.

2. If the average outflow concentration is not less than the applicable criteria, then the facility shall be deemed in compliance with this condition;

3. If the average outflow concentration is less than the applicable criteria, but is greater than or equal to, the average inflow concentration, then the facility shall be deemed in compliance with this condition;

4. If the average outflow concentration is less than the applicable criteria, and is not greater than the average inflow concentration, but a demonstration can be made that the project results in a net dissolved oxygen benefit in receiving waters as a result of decreased nutrients and/or oxygen demand, then the facility shall be deemed in compliance with this condition; or,

5. If the average outflow concentration is less than the applicable criteria, and is not greater than the average inflow concentration, but the aforementioned demonstration can not be made, then adaptive management measures (e.g., operational or structural modifications) should be taken to ensure that dissolved oxygen conditions are not degraded in the receiving waters.

C. **Other Water Quality Parameters**. The permittee shall collect samples and monitor water quality during flow-through (discharge) activities in accordance with Table 2. For all water quality parameters other than total phosphorus, total nitrogen, and dissolved oxygen, inflow and outflow samples collected at the sampling locations identified in Figure 1 and 2 shall be used to determine compliance with the Section 373.1502(3)(b)(2), F.S. Compliance with shall be evaluated as follows:

1. If flow-through discharges have been occurring for less than 12 months, but the Corps is preparing to turn the project over to the Non-Federal Sponsor in accordance with Specific Condition 10, then calculate an average for the outflow and inflow structures based on the available data and evaluate according to the following criteria. If flow-through discharges have been occurring for 12 months, then calculate the annual average for the outflow and inflow structures and evaluate according to the following criteria. If flow-through discharges occur for greater than 12 months, then calculate the annual average at the 12 month mark and every 12 months thereafter or calculate the annual average at the 12 month mark and a subsequent average immediately prior to turnover to the District and evaluate according to the following criteria.

2. If the average outflow concentration does not exceed applicable criteria, then the facility shall be deemed in compliance;

3. If the average outflow concentration causes or contributes to an exceedance of applicable criteria, but does not exceed, or is equal to, the average inflow concentration, then the facility shall be deemed in compliance; or,

4. If the average outflow concentration causes or contributes to an exceedance of applicable criteria, and also exceeds the average inflow concentration, then the facility shall be deemed out of compliance with this condition.

D. Aerial Vegetation Photographs and Mapping –Within twelve months after initiating the Initial Operational Testing and Monitoring Period, the permittee shall submit a baseline vegetation coverage map for the project, based upon ground-truthed aerial photographs. The baseline vegetation coverage map shall include color codes for cattail,

open water, and mixed marsh vegetation, although the latter category may be broken down into subcategories if dominated by certain types of vegetation. From the baseline vegetation coverage map, the extent of areal coverage of each vegetation cover type within the Ten Mile Creek Project shall be assessed. The baseline vegetation coverage map and a summary of the extent of area coverage of each vegetative coverage type shall be included in the monitoring report to be submitted to the Department in accordance with Specific Condition 18.

Factors Impacting Compliance

15. **Factors Outside the Permittee's Control.** In the event that non-compliance or failure to perform as designed occurs for any of the reasons below, the permittee shall take appropriate remedial measures.

    A. **Natural Background.** Deviations from water quality standards may occur as a result of natural background conditions, in accordance with Section 403.021(11), F.S.

    B. **Random Variation.** The permittee shall report any statistical uncertainty in the methodology using acceptable scientific methods.

    C. **Vegetation Conditions**. The permittee shall report whether vegetation conditions in the Ten Mile Creek Project have contributed to the non-compliance. The permittee shall prepare an analysis of the vegetation coverage of the Ten Mile Creek Project as compared with the baseline vegetation coverage maps developed in accordance with the monitoring conditions below.

Renewals and Modifications

16. **Permit Renewal.** At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of up to 5 years in accordance with Subsection (3)(g) of the CERPRA.

17. **Department Review and Approval.** Where conditions in this permit require Department review of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

18. **Annual Water Quality Monitoring Reports.** All water quality submittals required by this permit shall be submitted to the Department in an "Annual Report". The Annual Reports are to be received by the Department no later than January 1st of each year following the date of issuance of this permit. If additional reporting modifications are required, the permittee may request a modification of the annual report submission date to coincide with other reporting requirements and time periods needed for data acquisition and analysis. In addition to the permit number and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information:

    A. **Quality Assurance and Quality Control.** Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class I and Class III surface water quality standards as specified in Chapter 62-302, F.A.C., and groundwater standards as specified in Chapter 62-520, F.A.C., whichever is more stringent. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (January 2002). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

    B. **Water Quality Data.** Records of monitoring information shall include:

        1. Date, location, and time of sampling or measurements;

2. Person responsible for performing the sampling or measurements;
3. Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.;
4. Person responsible for performing the analyses;
5. Analytical techniques or methods used, including MDL;
6. Results of such analyses, including appropriate data qualifiers;
7. Depth of samples;
8. Flow conditions and weather conditions at time of sampling; and,
9. Monthly flow volumes.

C. **Hydraulic Retention Time**. Calculations for reporting which require averaging of measurements shall be weighted by flow value. Comparison of the moving annual average inflow and outflow levels for all parameters established in the Initial Operational Testing and Monitoring period for water quality compliance shall be calculated by comparing outflow data to inflow data adjusted appropriately for the estimated hydraulic retention time within the Project.

D. **Herbicide and Pesticide Tracking.** The permittee shall provide in each annual report information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests in the wetted area of the Project. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used.

19. **Removal of Parameters.** Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with Class III Water Quality Standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.

20. **Addition of Parameters.** If the Department has reason to believe that additional parameters exist that may cause or contribute to water quality violations in the project area, those parameters shall be added to the monitoring section of this permit as a permit modification.

21. **Emergency Suspension of Sampling.** Under hurricane, tropical storm warnings, or other extreme weather conditions, the permittee's normal sampling schedule may be suspended if necessary. The permittee shall notify the Department's Southeast District and the Water Quality Standards and Special Projects Program at the addresses and telephone numbers listed in Specific Condition No. 3, above, of any anticipated sampling suspension associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within 14 days following the cessation of emergency conditions, the permittee shall notify the Department of when normal sampling is expected to resume.

22. **Monitoring Required.** The following water quality parameters shall be monitored for the Ten Mile Creek Project:

Sample Type:	G = Grab sample FPC = Flow proportionate composite sample INSITU = In Situ field sample CAL = Calculated parameter PR = Pump record RG = Rain Gauge HYDRO = Hydrolab
Sample Locations:	Inflow Sites = S-382 Outflow Site = S-384

Sample Frequency: W = Weekly
BI-W = Once every other week (26 samplings per year)
Q = Quarterly
DAV = Daily averages of continuous sampling
DAC = Daily accumulation of continuous sampling

TABLE 1- START UP PESTICIDE MONITORING

	Water	Units	Sediment	Units	Sampling Locations
ALDICARB	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ALDICARB SULFONE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ALDICARB SULFOXIDE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ATRAZINE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
AZINPHOS METHYL	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
BROMACIL	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
CARBARYL	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
CARBOFURAN	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
CHLORPYRIFOS	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
DIMETHOATE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
DIAZINON	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
DESETHYL ATRAZINE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
DESISOPROPYL ATRAZINE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
DIURON	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ENDOSULFAN I	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ENDOSULFAN II	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ENDOSULFAN SULFATE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
ETHION	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
FENAMIPHOS	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
HEXAZINONE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
3-HYDROXYCARBOFURAN	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
IMIDACLOPRID	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
MALATHION	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
METHIDATHION	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
METHIOCARB	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
METHOMYL	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
OXAMYL	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
NORFLURAZON	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
PROPOXUR	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
SIMAZINE	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
THIAZOPYR	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow
THIAZOPYR MONOACID	Yes	ug/L	Yes	ug/Kg	Inflow & Outflow

TABLE 2 - ROUTINE MONITORING PROGRAM

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Alkalinity	mg/l	G	BI-W	Inflow & Outflow
Ammonia	mg/l	G	BI-W	Inflow & Outflow
Chloride	mg/l	G	BI-W	Inflow & Outflow
Total Copper[1]	µg/l	G	Q	Inflow & Outflow
Dissolved Oxygen[2]	mg/l	G	BI-W	Inflow, Outflow, and Representative Downstream Site
Mercury	µg/L	G	Q	Inflow & Outflow
pH	SU	INSITU	W	Inflow & Outflow
Specific Conductance	Umhos	INSITU	W	Inflow & Outflow
Temperature	Deg C	INSITU	W	Inflow & Outflow
Turbidity	NTU	G	BI-W	Inflow & Outflow
Total Phosphorus	mg/l	FPC/G	W	Inflow & Outflow
Total Nitrogen	mg/l	CALC	BI-W	Inflow & Outflow
Nitrate + Nitrite	mg/l	FPC	BI-W	Inflow & Outflow
Total Kjiedahl Nitrogen	mg/l	FPC	BI-W	Inflow & Outflow
Ortho-Phosphate	mg/l	G	BI-W	Inflow & Outflow
Total Dissolved Solids	mg/l	G	BI-W	Inflow & Outflow
Total Suspended Solids	mg/l	G	BI-W	Inflow & Outflow
Flow	CFS	PR	DAV	Inflow & Outflow
Flow	CFS	CAL	DAV	Inflow & Outflow
Rainfall Amount	Inches	RG	DAC	Rainfall Sampling Station

[1] Total Copper should be collected using clean hands techniques in conjunction with ultra-trace mercury.

[2] It may be necessary to increase sampling locations in immediate and downstream receiving waters or initiate diel monitoring in order to make the dissolved oxygen demonstration in Specific Condition 14(B).

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Jerry Brooks

Jerry Brooks
Deputy Division Director
Division of Water Resource Management

JB/tm/ih

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this, including all copies, were mailed or emailed before the close of business on Aug. 13, 2003, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, with the designated Department Clerk, receipt of which is hereby acknowledged.

8/13/03

Clerk Date

Ten Mile Creek Project Site Plan and Monitoring Locations
Figure 1